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Sequence Listing was accepted.

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Reviewer: Keisha Douglas

Timestamp: [year=2008; month=10; day=10; hr=15; min=28; sec=11; ms=868;
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Application No: 10585077

Version No: 2.0

Input Set:

Output Set:

Started: 2008-10-07 15:13:22.356

Finished: 2008-10-07 15:13:25.344

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 988 ms

Total Warnings: 13

Total Errors: 0

No. of SeqIDs Defined: 32

Actual SeqID Count: 32

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SEQUENCE LISTING

<110> CHRISTENSEN, GEIR
ANDERSSON, KRISTIN BREVIK

<120> NON-HUMAN MAMMAL COMPRISING A MODIFIED SERCA2 GENE AND
METHODS, CELLS, GENES, AND VECTORS THEREOF

<130> 3657-1037

<140> 10585077

<141> 2008-10-07

<150> PCT/NO04/000397

<151> 2004-12-22

<150> 60/533,740

<151> 2003-12-30

<160> 32

<170> PatentIn Ver. 3.3

<210> 1

<211> 801

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
nucleotide construct

<400> 1

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acccggctcc acctcgtag gcttggtctg gcgcgcgcc cgacggctgc gagaggcccg 180
cgggtccacgc gggggtctgg gccatcgccg accttagggg tctcgaatca agcttatcga 240
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nucleotide construct

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gtttaagtct gaccagggg gatccggaac ccttaatata acttcgtata atgtatgcta 180
tacgaagtta ttaggtccct cgacctgcag cccaagctga tcctctagtc gagccccagc 240
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tactcagaca atgcatgca atttcctcat tttattagga aaggacagtg ggagtggcac 420
cttcagggt caaggaaggc acgggggagg ggcaacaac agatggctgg caactagaag 480
gcacagtcga ggctgatcag cgagctctag ctagagaatt gatccctca gaagaactcg 540
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tgtctgataa gcgggtccgcc cacacccaac cgccacaag tcatgaaatc caaaaaagcg 720
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<223> Description of Artificial Sequence: Synthetic
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cgtagacgat atcgtcgcgc gaaccaggg ccaccagcaa gttgcgtggt ggtggttttc 180
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caggcctggg tggagaggct ttttgcttcc tcttgcaaaa ccacactgct cgacattggg 660
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cgatccggaa cccttaatat aacttcgtat aatgtatgct atacgaagt attaggtccc 780
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<210> 5
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<223> Description of Artificial Sequence: Synthetic
primer

<400> 5
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<210> 6
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catcgacgcc tcataaatcc 20

<210> 7
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primer

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<213> Artificial Sequence

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<210> 10

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<212> DNA

<213> Artificial Sequence

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<210> 11

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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<210> 13

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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<211> 994

<212> PRT

<213> Mus musculus

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Leu Glu Lys Tyr Gly Pro Asn Glu Leu Pro Ala Glu Glu Gly Lys Ser
35 40 45

Leu Trp Glu Leu Val Val Glu Gln Phe Glu Asp Leu Leu Val Arg Ile
50 55 60

Leu Leu Leu Ala Ala Cys Ile Ser Phe Val Leu Ala Trp Phe Glu Glu
65 70 75 80

Gly Glu Glu Thr Val Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
85 90 95

Ile Leu Ile Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

Glu Asn Ala Ile Glu Ala Leu Lys Glu Tyr Glu Pro Glu Met Gly Lys
115 120 125

Val Tyr Arg Ala Asp Arg Lys Ser Val Gln Arg Ile Lys Ala Arg Asp
130 135 140

Ile Val Pro Gly Asp Ile Val Glu Val Ala Val Gly Asp Lys Val Pro
145 150 155 160

Ala Asp Ile Arg Ile Leu Ser Ile Lys Ser Thr Thr Leu Arg Val Asp
165 170 175

Gln Ser Ile Leu Thr Gly Glu Ser Val Ser Val Ile Lys His Thr Asp
180 185 190

Pro Val Pro Asp Pro Arg Ala Val Asn Gln Asp Lys Lys Asn Met Leu
195 200 205

Phe Ser Gly Thr Asn Ile Ala Ala Gly Lys Ala Val Gly Ile Val Ala
210 215 220

Thr Thr Gly Val Ser Thr Glu Ile Gly Lys Ile Arg Asp Gln Met Ala
225 230 235 240

Ala Thr Glu Gln Asp Lys Thr Pro Leu Gln Gln Lys Leu Asp Glu Phe

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Leu	Ile	Asn	Ile	Gly	His	Phe	Asn	Asp	Pro	Val	His	Gly	Gly	Ser	Trp
275				280				285							
Phe	Arg	Gly	Ala	Ile	Tyr	Tyr	Phe	Lys	Ile	Ala	Val	Ala	Leu	Ala	Val
290				295				300							
Ala	Ala	Ile	Pro	Glu	Gly	Leu	Pro	Ala	Val	Ile	Thr	Thr	Cys	Leu	Ala
305				310				315				320			
Leu	Gly	Thr	Arg	Arg	Met	Ala	Lys	Lys	Asn	Ala	Ile	Val	Arg	Ser	Leu
325				330				335							
Pro	Ser	Val	Glu	Thr	Leu	Gly	Cys	Thr	Ser	Val	Ile	Cys	Ser	Asp	Lys
340				345				350							
Thr	Gly	Thr	Leu	Thr	Thr	Asn	Gln	Met	Ser	Val	Cys	Lys	Met	Phe	Ile
355				360				365							
Ile	Asp	Lys	Val	Asp	Gly	Asp	Val	Cys	Ser	Leu	Asn	Glu	Phe	Ser	Ile
370				375				380							
Thr	Gly	Ser	Thr	Tyr	Ala	Pro	Glu	Gly	Glu	Val	Leu	Lys	Asn	Asp	Lys
385				390				395				400			
Pro	Val	Arg	Ala	Gly	Gln	Tyr	Asp	Gly	Leu	Val	Glu	Leu	Ala	Thr	Ile
405				410				415							
Cys	Ala	Leu	Cys	Asn	Asp	Ser	Ser	Leu	Asp	Phe	Asn	Glu	Thr	Lys	Gly
420				425				430							
Val	Tyr	Glu	Lys	Val	Gly	Glu	Ala	Thr	Glu	Thr	Ala	Leu	Thr	Thr	Leu
435				440				445							
Val	Glu	Lys	Met	Asn	Val	Phe	Asn	Thr	Glu	Val	Arg	Ser	Leu	Ser	Lys
450				455				460							
Val	Glu	Arg	Ala	Asn	Ala	Cys	Asn	Ser	Val	Ile	Arg	Gln	Leu	Met	Lys
465				470				475				480			
Lys	Glu	Phe	Thr	Leu	Glu	Phe	Ser	Arg	Asp	Arg	Lys	Ser	Met	Ser	Val
485				490				495							
Tyr	Cys	Ser	Pro	Ala	Lys	Ser	Ser	Arg	Ala	Ala	Val	Gly	Asn	Lys	Met
500				505				510							
Phe	Val	Lys	Gly	Ala	Pro	Glu	Gly	Val	Ile	Asp	Arg	Cys	Asn	Tyr	Val
515				520				525							
Arg	Val	Gly	Thr	Thr	Arg	Val	Pro	Leu	Thr	Gly	Pro	Val	Lys	Glu	Lys
530				535				540							
Ile	Met	Ser	Val	Ile	Lys	Glu	Trp	Gly	Thr	Gly	Arg	Asp	Thr	Leu	Arg

545		550		555		560									
Cys	Leu	Ala	Leu	Ala	Thr	Arg	Asp	Thr	Pro	Pro	Lys	Arg	Glu	Glu	Met
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Val	Leu	Asp	Asp	Ser	Ala	Lys	Phe	Met	Glu	Tyr	Glu	Met	Asp	Leu	Thr
				580				585					590		
Phe	Val	Gly	Val	Val	Gly	Met	Leu	Asp	Pro	Pro	Arg	Lys	Glu	Val	Thr
		595					600					605			
Gly	Ser	Ile	Gln	Leu	Cys	Arg	Asp	Ala	Gly	Ile	Arg	Val	Ile	Met	Ile
	610					615					620				
Thr	Gly	Asp	Asn	Lys	Gly	Thr	Ala	Ile	Ala	Ile	Cys	Arg	Arg	Ile	Gly
625					630					635					640
Ile	Phe	Ser	Glu	Asn	Glu	Glu	Val	Thr	Asp	Arg	Ala	Tyr	Thr	Gly	Arg
				645					650					655	
Glu	Phe	Asp	Asp	Leu	Pro	Leu	Ala	Glu	Gln	Arg	Glu	Ala	Cys	Arg	Arg
				660				665					670		
Ala	Cys	Cys	Phe	Ala	Arg	Val	Glu	Pro	Ser	His	Lys	Ser	Lys	Ile	Val
		675					680					685			
Glu	Tyr	Leu	Gln	Ser	Tyr	Asp	Glu	Ile	Thr	Ala	Met	Thr	Gly	Asp	Gly
	690					695					700				
Val	Asn	Asp	Ala	Pro	Ala	Leu	Lys	Lys	Ala	Glu	Ile	Gly	Ile	Ala	Met
705					710					715					720
Gly	Ser	Gly	Thr	Ala	Val	Ala	Lys	Thr	Ala	Ser	Glu	Met	Val	Leu	Ala
				725					730					735	
Asp	Asp	Asn	Phe	Ser	Thr	Ile	Val	Ala	Ala	Val	Glu	Glu	Gly	Arg	Ala
				740				745					750		
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	755					760						765			
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	770					775					780				
Glu	Ala	Leu	Ile	Pro	Val	Gln	Leu	Leu	Trp	Val	Asn	Leu	Val	Thr	Asp
785					790				795						800
Gly	Leu	Pro	Ala	Thr	Ala	Leu	Gly	Phe	Asn	Pro	Pro	Asp	Leu	Asp	Ile
				805					810					815	
Met	Asp	Arg	Pro	Pro	Arg	Ser	Pro	Lys	Glu	Pro	Leu	Ile	Ser	Gly	Trp
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Leu	Phe	Phe	Arg	Tyr	Met	Ala	Ile	Gly	Gly	Tyr	Val	Gly	Ala	Ala	Thr
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865	870	875 880
Pro Glu Phe Asp Gly Leu Asp Cys Glu Val Phe Glu Ala Pro Glu Pro		
885	890	895
Met Thr Met Ala Leu Ser Val Leu Val Thr Ile Glu Met Cys Asn Ala		
900	905	910
Leu Asn Ser Leu Ser Glu Asn Gln Ser Leu Leu Arg Met Pro Pro Trp		
915	920	925
Val Asn Ile Trp Leu Leu Gly Ser Ile Cys Leu Ser Met Ser Leu His		
930	935	940
Phe Leu Ile Leu Tyr Val Asp Pro Leu Pro Met Ile Phe Lys Leu Arg		
945	950	955 960
Ala Leu Asp Phe Thr Gln Trp Leu Met Val Leu Lys Ile Ser Leu Pro		
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Val Ile Gly Leu Asp Glu Leu Leu Lys Phe Ile Ala Arg Asn Tyr Leu		
980	985	990
Glu Gly		

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 <211> 998
 <212> PRT
 <213> Mus musculus

<400> 15

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35 40 45
Leu Leu Glu Leu Val Ile Glu Gln Phe Glu Asp Leu Leu Val Arg Ile
50 55 60
Leu Leu Leu Ala Ala Cys Ile Ser Phe Val Leu Ala Trp Phe Glu Glu
65 70 75 80
Gly Glu Glu Thr Ile Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
85 90 95
Ile Leu Val Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

Glu	Asn	Ala	Ile	Glu	Ala	Leu	Lys	Glu	Tyr	Glu	Pro	Glu	Met	Gly	Lys	115	120	125
Val	Tyr	Arg	Gln	Asp	Arg	Lys	Ser	Val	Gln	Arg	Ile	Lys	Ala	Lys	Asp	130	135	140
Ile	Val	Pro	Gly	Asp	Ile	Val	Glu	Ile	Ala	Val	Gly	Asp	Lys	Val	Pro	145	150	155
Ala	Asp	Ile	Arg	Leu	Thr	Ser	Ile	Lys	Ser	Thr	Thr	Leu	Arg	Val	Asp	165	170	175
Gln	Ser	Ile	Leu	Thr	Gly	Glu	Ser	Val	Ser	Val	Ile	Lys	His	Thr	Asp	180	185	190
Pro	Val	Pro	Asp	Pro	Arg	Ala	Val	Asn	Gln	Asp	Lys	Lys	Asn	Met	Leu	195	200	205
Phe	Ser	Gly	Thr	Asn	Ile	Ala	Ala	Gly	Lys	Ala	Met	Gly	Val	Val	Val	210	215	220
Ala	Thr	Gly	Val	Asn	Thr	Glu	Ile	Gly	Lys	Ile	Arg	Asp	Glu	Met	Val	225	230	235
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Gly	Glu	Gln	Leu	Ser	Lys	Val	Ile	Ser	Leu	Ile	Cys	Ile	Ala	Val	Trp	260	265	270
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Leu	Gly	Thr	Arg	Arg	Met	Ala	Lys	Lys	Asn	Ala	Ile	Val	Arg	Ser	Leu	325	330	335
Pro	Ser	Val	Glu	Thr	Leu	Gly	Cys	Thr	Ser	Val	Ile	Cys	Ser	Asp	Lys	340	345	350
Thr	Gly	Thr	Leu	Thr	Thr													